

REMARKS

I. Introduction

Claims 10 to 29 are currently pending in the present application. In view of the following remarks, it is respectfully submitted that all of the presently pending claims are allowable, and reconsideration of the present application is respectfully requested.

II. Rejection of Claims 10 to 14, 19, 20, and 24 Under 35 U.S.C. §§ 102(b) or 103(a)

Claims 10 to 14, 19, 20, and 24 were rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 4,934,349 ("Demizu") or under 35 U.S.C. § 103(a) as unpatentable over Demizu. Applicants respectfully submit that Demizu does not anticipate or render unpatentable the present claims for the following reasons.

To anticipate a claim, each and every element as set forth in the claim must be found in a single prior art reference. Verdegaal Bros. v. Union Oil Co. of Calif., 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). Furthermore, "[t]he identical invention must be shown in as complete detail as is contained in the . . . claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989). That is, the prior art must describe the elements arranged as required by the claims. In re Bond, 910 F.2d 831, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990).

To establish a prima facie case of obviousness, the Office Action must demonstrate three criteria: (1) there must be some suggestion or motivation to one of ordinary skill in the art to modify a reference or to combine reference teachings; (2) there must be a reasonable expectation of success; and (3) the prior art reference (or references when combined) must teach or suggest each and every limitation in the claim under examination. In re Vaeck, 947 F.2d 488 (Fed. Cir. 1991).

Claim 10 relates to a sheathed-element glow plug that includes a switch. As mentioned, for example, on page 1, lines 24 to 29 of the Specification, a sheathed element glow plug according to the present application may be designed to be relatively small, may ensure good cooling and may provide for the temperature at the threads of the glow plug to be safely limited by water cooling of the engine. Although Demizu may refer to a controlling apparatus that includes a switch element

2-and a glow plug 1 **arranged in series**, column 2, lines 39 to 53, and figure 1, the switch element 2 and the glow plug 1 are separate elements. Nowhere does Demizu disclose, or even suggest, that a glow plug itself includes a switch. Thus, Demizu does not disclose, or even suggest, all of the limitations of claim 10. It is therefore respectfully submitted that Demizu does not anticipate or render unpatentable claim 10.

As for claims 11 to 14, 19, 20, and 24, which ultimately depend from claim 10 and therefore include all the limitations of claim 10, it is respectfully submitted that Demizu does not anticipate or render unpatentable these dependent claim for at least the same reasons more fully set forth above in support of the patentability of claim 10.

Furthermore, with respect to claims 19 and 20, the Office Action asserts that a housing, a ground, and a regulator are inherently disclosed in Demizu. However, in “relying upon a theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristics necessarily flows from the teachings of the applied prior art.” Ex parte Levy, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original). Furthermore, inherency “may not be established by probabilities or possibilities,” and “[t]he mere fact that a certain thing may result from a given set of circumstances is not sufficient.” In re Robertson, 169 F.3d 743, 745 (Fed. Cir. 1999). Other than the unsupported statement that “Demizu teaches structural similarity that [is] inherently capable of use as set forth in these claims,” the Office Action does not set forth a basis in fact that the housing, ground potential, and regulator are necessarily present in the glow plug of Demizu. It is therefore respectfully submitted that the present rejection to claims 19 and 20 should be withdrawn for this additional reason.

III. Rejection of Claims 15 to 18, 21 to 23, and 25 to 29 Under 35 U.S.C. § 103(a)

Claims 15 to 18, 21 to 23, and 25 to 29 were rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Demizu, U.S. Patent No. 5,529,035 (“Hunt et al.”), and U.S. Patent No. 5,158,050 (“Hawkins et al.”). It is respectfully submitted that the combination of Demizu, Hunt et al., and Hawkins et

al. does not render unpatentable claims 15 to 18, 21 to 23, and 25 to 29 for the following reasons.

Claims 15 to 18, 21 to 23, 27, and 28 ultimately depend from claim 10 and therefore include all the limitations of claim 10. As set forth above, Demizu does not disclose or even suggest all of the limitations of claim 10. Neither Hunt et al. nor Hawkins et al. is relied upon for disclosing or suggesting the limitations of claim 10 not disclosed or suggested by Demizu. Indeed, it is respectfully submitted that neither Hunt et al. nor Hawkins et al. discloses or even suggests the limitations of claim 10 not disclosed or suggested by Demizu. It is therefore respectfully submitted that the combination of Demizu, Hunt et al. and Hawkins et al. does not render unpatentable any of claims 15 to 18, 21 to 23, 27, and 28, which ultimately depend from claim 10.

Claim 25 includes features analogous to features included in claim 10. It is therefore respectfully submitted that claim 25 is patentable over the combination of Demizu, Hunt et al. and Hawkins et al. for at least the same reasons set forth above. Claims 26 and 29 depend from claim 25 and therefore include all of the limitations of claim 25. It is therefore respectfully submitted that the combination of Demizu, Hunt et al. and Hawkins et al. does not render unpatentable any of claims 26 and 29, which depend from claim 25.

IV. Conclusion

In light of the foregoing, it is respectfully submitted that all pending claims are in condition for allowance. Prompt reconsideration and allowance of the present application are therefore earnestly solicited.

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Respectfully submitted,

By: 

Richard L. Mayer
Reg. No. 22,490

KENYON & KENYON
One Broadway
New York, New York 10004
(212) 425-7200
CUSTOMER NO 26646